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EXAMINER

SHECHTMAN, SEAN P

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 09/10/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,137

Applicant(s)

HANSON, JAY L.

Examiner

Sean P. Shechtman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-60 are presented for examination.

Specification

2. The use of the trademark sentry has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-44 are directed towards a temperature control unit comprising the steps of querying a user to select or program control modes. Examiner respectfully submits that the specification fails to reasonably provide enablement for such a query, indicator, alarm, artificial intelligence or any provision/initiation of notification to the user to select or program such control modes. Examiner respectfully submits that, although the specification does reasonably provide enablement for prompting the user to enter numerical temperature values (page 28, line

10 – page 30, line 8 of the instant specification), the specification teaches that the program determines if an operator initiated/selected command has taken place (page 11, lines 21-22; Fig. 1a, element 22; Page 12, lines 11-12 of the instant specification) after a programmed routine has been initiated (See for example, Page 11, lines 17-22 of the instant specification). Furthermore, although the instant application recites such a query for the user to select or program such control modes in the summary of the invention (i.e., pages 2-5 of the instant specification), examiner respectfully submits that the instant specification fails to provide a means or reason to query a user to select or program control modes, such as, for example, a light, an indicator, an alarm, a warning, a notification device, artificial intelligence, etc, etc. Due to the vagueness and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, 9, 13, 14, 23, 28, 29, 45, 52, 53 and 57, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2003/0024256 to Hanson.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

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102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Referring to claims 1, 8, 9, 23, 45 and 52, 53, Hanson discloses a method and apparatus for controlling a transport temperature control unit having cooling and heating cycles for cooling and heating a conditioned space within a transport (Page 2, paragraph 0018), the temperature control unit including a programmable temperature range (Page 3, paragraph 0028), the method comprising:

programming a first pre-programmed control mode into the unit (Page 2, paragraph 0018; Page 3, paragraphs 0027-0028);

configuring the unit such that a second control mode is programmable into the unit by an end user; querying the end user to select numerical temperature values for the programmable temperature range (Page 3, paragraph 0029);

querying the end user to select the first pre-programmed control mode for operation of the programmable temperature range or to program the second control mode into the programmable temperature range for operation of the programmable temperature range; and programming the second control mode into the programmable temperature range by the end user when the second control mode is desired by the end user (Page 5, paragraph 0055).

Referring to claims 13, 14, 28, 29, and 57, Hanson discloses the method and apparatus, wherein the step of programming a unit control mode for the programmable temperature range

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further includes selecting one of a cycle sentry mode, a continuous mode and a cycle sentry/continuous select mode (Page 3, paragraph 0030-0031).

5. Claims 1 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,873,520 to Ratgeber.

Referring to claims 1, and 45, Ratgeber discloses a method and apparatus for controlling a transport temperature control unit having cooling and heating cycles for cooling and heating a conditioned space within a transport (Abstract), the temperature control unit including a programmable temperature range (Col. 5, lines 31-35), the method comprising:

programming a first pre-programmed control mode into the unit (Col. 5, line 30);

configuring the unit such that a second control mode is programmable into the unit by an end user (Col. 5, lines 31-35);

querying the end user to select the first pre-programmed control mode for operation of the programmable temperature range or to program the second control mode into the programmable temperature range for operation of the programmable temperature range (Col. 5, lines 37-48; Col. 4, lines 41-50);

and programming the second control mode into the programmable temperature range by the end user when the second control mode is desired by the end user (Col. 5, lines 31-35).

6. Claims 1, 5, 8, 9, 11, 12, 15-17, 23, 24, 26, 27, 33, 36-39, 41-45, 49, 52, 53, 55, 56, and 58-60 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,104,037 to Karg.

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Referring to claims 1, 5, 8, 9, 12, 15-17, 23, 24, 27, 33, 36-39, 45, 49, 52, 53, 56, 58-60, Karg discloses a method and apparatus for controlling a transport temperature control unit having cooling and heating cycles for cooling and heating conditioned spaces within a plurality of transports (Abstract, i.e., for mass transit vehicles), the temperature control unit including a programmable temperature range (Col. 2, lines 49-68), the method comprising:

programming a first pre-programmed control mode into the unit (Col. 5, lines 28-52);

configuring the unit such that a second control mode is programmable into the unit by an end user (Col. 6, lines 47-65);

querying the end user to select numerical temperature values for the programmable temperature range (Col. 5, line 67 – Col. 6, line 46);

querying the end user to select the first pre-programmed control mode for operation of the programmable temperature range or to program the second control mode into the programmable temperature range for operation of the programmable temperature range; and programming the second control mode into the programmable temperature range by the end user when the second control mode is desired by the end user (Col. 6, lines 47-65).

Referring to claims 11, 26, 41-44, 55, Karg teaches the method and apparatus above, further including the step of selecting a first priority for the first programmable temperature range and a second priority for the second programmable temperature range by the end user and further including the step of operating the temperature control unit in the unit control mode corresponding to which of the first priority and the second priority have the higher priority (Col. 6, lines 47-65).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 25, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,104,037 to Karg as applied to claims 1, 5, 8, 9, 11, 12, 15-17, 19-24, 26, 27, 33, 36-39, 41-45, 49, 52, 53, 55, 56, and 58-60 above, and further in view of Applicant's Admitted Prior Art (AAPA).

Referring to claims 10, 25, and 54, Karg fails to teach method and apparatus above, wherein the numerical temperature values include a minimum temperature value and a maximum temperature value.

However, AAPA teaches analogous art, wherein the numerical temperature values include a minimum temperature value and a maximum temperature value (See page 1, lines 12-27 of the instant specification).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of AAPA with the temperature control system of Karg.

One of ordinary skill in the art would have been motivated to combine these references because AAPA teaches temperature control unit ranges that have a minimum and maximum temperature range are commonly known in the art.

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8. Claims 4, 13, 14, 18-22, 28, 29, 32, 40, 48, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,104,037 to Karg as applied to claims above, and further in view of U.S. Pat. No. 5,557,941 to Hanson.

Referring to claims 19-22, Karg teaches the method and apparatus above, further including the step of selecting a first priority for the first programmable temperature range and a second priority for the second programmable temperature range by the end user and further including the step of operating the temperature control unit in the unit control mode corresponding to which of the first priority and the second priority have the higher priority (Col. 6, lines 47-65 of '037).

Referring to claims 4, 32, and 48, Karg fails to teach the method and apparatus above, wherein the step of programming includes the step of programming a restart temperature at which temperature the conditioned space restarts from a null condition.

Referring to claims 13-14, 18, 28, 29, 40, and 57, Karg fails to teach the method and apparatus above, wherein the step of programming unit control modes for the programmable temperature range further includes selecting one of a cycle sentry mode.

However, referring to claims 4, 32, and 48, Hanson teaches analogous art (Claim 1 of '941), wherein the step of programming includes the step of programming a restart temperature at which temperature the conditioned space restarts from a null condition (See Col. 2, lines 44-59 of '941).

Referring to claims 13-14, 18, 28, 29, 40, and 57, Hanson teaches analogous art, wherein the step of programming unit control modes for the programmable temperature range further includes selecting one of a continuous mode (Col. 2, lines 25-43 of '941).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hanson with the temperature control system of Karg.

One of ordinary skill in the art would have been motivated to combine these references because Hanson teaches improved refrigeration units operable in a continuous mode and wherein an operator can insure a predetermined minimum average air flow will match air flow requirements of the load being conditioned (Col. 2, lines 2-59 of '941).

9. Claims 3, 6, 31, 34, 47, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,104,037 to Karg as applied to claims 1, 8-9, 23, 24, 45, and 52-53 above, and further in view of U.S. Pat. No. 5,123,252 to Hanson.

Referring to claims 3, 6, 31, 34, 47, and 50, Karg fails to teach the method and apparatus above, wherein the step of programming includes the step of programming a high speed cool to low speed cool switch point at which point the unit switches between high speed cool and low speed cool in the conditioned space, and programming a low speed heat to low speed cool switch point at which point the unit switches between low speed heat and low speed cool in the conditioned space.

Referring to claims 3, 6, 31, 34, 47, and 50, Hanson teaches analogous art, wherein the step of programming includes the step of programming a high speed cool to low speed cool switch point at which point the unit switches between high speed cool and low speed cool in the conditioned space, and programming a low speed heat to low speed cool switch point at which

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point the unit switches between low speed heat and low speed cool in the conditioned space (Col. 9, lines 19-37 of '252).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hanson with the temperature control system of Karg.

One of ordinary skill in the art would have been motivated to combine these references because Hanson teaches look up tables are accessed by a microprocessor to determine high and low trips and correct functionality of each operating condition in a selected control algorithm (Col. 1, lines 33-64 of '252).

10. Claims 2, 30, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,104,037 to Karg as applied to claims above, and further in view of Re. 36,437 to Hanson.

Referring to claims 2, 30, and 46, Karg fails to teach the method and system above, wherein the step of programming includes the step of selectively programming a fuel saver timer operable to decrease fuel consumption of the unit.

However, referring to claims 2, 30, and 46, Hanson teaches the method and system above, wherein the step of programming includes the step of selectively programming a fuel saver timer operable to decrease fuel consumption of the unit (Col. 1, lines 51-65; Col. 5, lines 53-64; Col. 11, lines 20-34; Col. 19, lines 38-48 of '437).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hanson with the temperature control system of Karg.

One of ordinary skill in the art would have been motivated to combine these references because Hanson teaches a new and improved method for operating an engine in an automatic start-stop mode to conserve fuel while maintaining the engine in a ready-to-start condition (Col. 1, lines 51-65 of '437).

11. Claims 7, 35, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,104,037 to Karg as applied to claims above, and further in view of.

Referring to claims 7, 35, and 51, Karg fails to teach the method and apparatus above, wherein the step of programming includes the step of programming door switch options by the end user ().

However, referring to claims 7, 35, and 51, Jurewicz teaches the method and apparatus above, wherein the step of programming includes the step of programming door switch options by the end user (Col. 5, line 20 – Col. 6, line 10 of '285).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Jurewicz with the temperature control system of Karg.

One of ordinary skill in the art would have been motivated to combine these references because Jurewicz teaches a data logger to economically convert time based data logger to a time and event based data logger (Col. 1, line 41 – Col. 2, line 26 of '285).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited to further show the state of the art with respect to vehicle temperature monitoring systems.

U.S. Pat. No. 4,970,496 to Kirkpatrick.

U.S. Pat. No. 5,209,397 to Arold.

U.S. Pat. No. 5,222,368 to Hanson.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (703) 305-7798. The examiner can normally be reached on Monday-Friday from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard, can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

SPS

Sean P. Shechtman

September 7, 2003



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